

Pb Free Plating Product

FMX-4202S



20Amperes,200Volts Insulated Common Cathode Ultra Fast Recovery Rectifiers

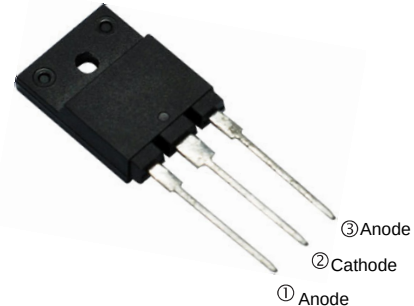
APPLICATION

- Freewheeling, Snubber, Clamp
- Inversion Welder
- PFC
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- UPS

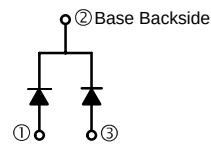
PRODUCT FEATURE

- Ultrafast Recovery Time
- Soft Recovery Characteristics
- Low Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Leakage Current

TO-3PF(TO-3PML)



Internal Configuration



GENERAL DESCRIPTION

FMX-4202S using the latest FRED FAB process(planar passivation chip) with ultrafast and soft recovery characteristic.

Absolute Maximum Ratings

Parameter	Symbol	Test Conditions	Values	Units
Repetitive peak reverse voltage	V_{RRM}		200	V
Continuous forward current(total device)	$I_{F(AV)}$	$T_c = 110^{\circ}C$	20	A
Single pulse forward current(total device)	I_{FSM}	$T_c = 25^{\circ}C$	200	
Maximum repetitive forward current	I_{FRM}	Square wave, 20kHz	50	
Operating junction	T_j		175	$^{\circ}C$
Storage temperatures	T_{stg}		-55 to +175	$^{\circ}C$

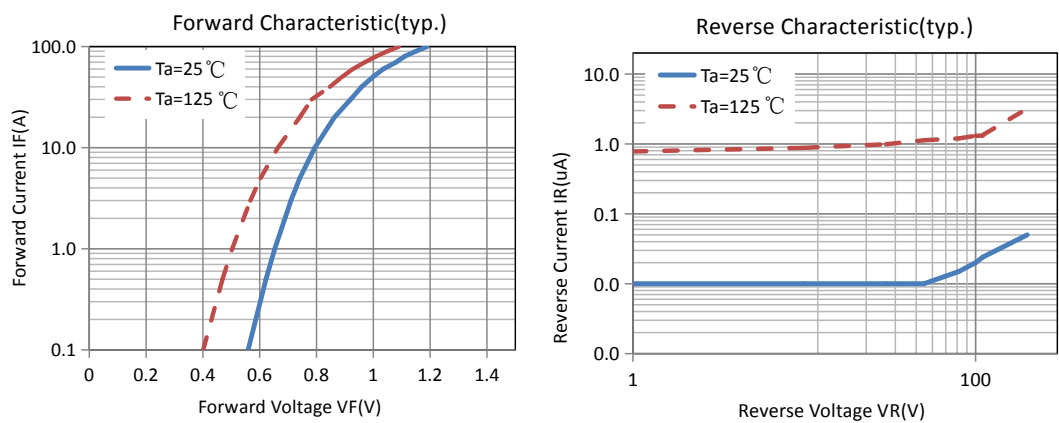
Electrical characteristics ($T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ.	Max.	Units
Breakdown voltage Blocking voltage	V_{BR}, V_R	$I_R=100\mu A$	200			V
Forward voltage (Per Diode)	V_F	$I_F=10A$		0.88	1.20	
		$I_F=10A, T_j=125^{\circ}C$		0.78	1.15	
Reverse leakage current(Per Diode)	I_R	$V_R=V_{RRM}$			10	μA
		$T_j=150^{\circ}C, V_R=200V$			100	
Reverse recovery time(Per Diode)	t_{rr}	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$		30	40	ns
		$I_F=1A, V_R=30V, di/dt=200A/us$		20	30	

Thermal characteristics

Paramter	Symbol	Typ	Units
Junction-to-Case	$R_{\theta JC}$	1.2	$^{\circ}C/W$

Electrical performance (typical)



Package Information

TO-3PF PACKAGE

